

Amendment and Response Under 37 C.F.R. §1.116 - Expedited Examining Procedure

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Serial No.: 10/020,522

Confirmation No.: 9096

Filed: 14 December 2001

For: DESSICATOR SYSTEM HAVING MODULAR ELEMENTS**Remarks**

The Final Office Action mailed 3 June 2004 has been received and reviewed. New claims 59-63 having been presented, the pending claims would be 1-63 upon entry of the new claims. Reconsideration and withdrawal of the rejections are respectfully requested.

New Claims 59-63

New claims 59-63 are presented for more comprehensive protection of the invention as described in the application. Support for new claims 59-63 can be found in the application as filed at, e.g., p. 8, line 11 to p. 9, line 15. Entry and consideration of new claims 59-63 are respectfully requested.

The 35 U.S.C. §112, Second Paragraph, Rejection

Claims 1-58 were rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. Specifically, the Examiner alleged that "it is not clear if there is any structural definition that corresponds to the respective volumes claimed or if an arbitrary choice of where one volume ends and the next begins is all that is required." In addition, the Examiner has offered two allegedly conflicting arguments as to the scope of the claims, followed by an assertion that "the volumes fail to properly point out or distinctly claim the invention since they are not directly tied to positively recited structure and are arbitrary in nature." Applicants respectfully submit that this rejection does not apply the proper standards under 35 U.S.C. § 112, second paragraph.

Initially, Applicants note that there is no requirement that claims recite only features that are "directly tied to positively recited structure." No support has been offered for this requirement under 35 U.S.C. § 112, second paragraph.

In addition, Applicants note that the rejection ignores those portions of the claims that do positively recite structures in connection with the different volumes. For example, independent claim 1 recites a first volume, second volume and sample volume defined by a sidewall of a

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desiccation chamber, where the sidewall and the desiccation chamber presumably both constitute positively recited structure. Claim 1 further recites a gas inlet and a gas vent in fluid communication with the first volume. As a result, the gas inlet and gas vent implicitly define boundaries of the first volume. Similarly, the claim recites a sample opening in fluid communication with the sample volume, thus implicitly defining the sample volume. The claim further recites that "the second volume separates the first volume from the sample volume," thereby positively reciting the relative locations of the different volumes within the desiccation chamber.

In other words, contrary to the assertions on which this rejection is based, the claim 1 does relate the different volumes to positively recited structure within the invention. Dependent claims that positively recite additional structural features of the invention relative to the different volumes can be found in claims 4-8, and 11-13.

With respect to independent claim 14, Applicants note that the claim recites a first volume within a concentrator chamber located within the body of a concentrator element. The claims further recites a gas inlet and a gas vent that are in fluid communication with the first volume. As a result, the gas inlet and gas vent implicitly define boundaries of the first volume. Claim 14 further recites a processing element that includes a processing chamber with a sample volume and at least a portion of a second volume. As a result, the processing element itself implicitly defines the boundaries of the sample volume and at least a portion of the second volume. In other words, contrary to the assertions on which this rejection is based, the claim 14 does relate the different volumes to positively recited structure within the invention. Dependent claims that recite additional structural features relative to the different volumes either explicitly or implicitly can be found in claims 15-27.

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Independent claim 36 and its dependent claims 37-58 are method claims. Claim 36 does, however, recite a first volume, second volume and sample volume defined by a sidewall of a desiccation chamber, where the sidewall and the desiccation chamber presumably both constitute positively recited structure. Claim 36 further recites a gas inlet and a gas vent in fluid communication with the first volume. As a result, the gas inlet and gas vent implicitly define boundaries of the first volume. In other words, contrary to the assertions on which this rejection is based, the claim 36 does relate the different volumes to positively recited structure within the invention.

Furthermore, because claims 36-58 are method of use claims, Applicants submit that the assertion that "[t]his is a product of the use of the device not of a change in the structural features of the device" is misplaced because the claims are necessarily directed to use of the device in the context of the recited volumes and structural features.

For at least the above reasons, Applicants respectfully submit that claims 1-58 do comply with the requirements of 35 U.S.C. § 112, second paragraph. Reconsideration and withdrawal of the rejection of claims 1-58 are, therefore, respectfully requested.

The 35 U.S.C. §102 Rejection

Claims 1-4, 14-18, and 28-29 were rejected under 35 U.S.C. §102(b) as being anticipated by Baker et al. (U.S. Patent No. 5,716,584). Applicants respectfully disagree that Baker et al. anticipates the rejected claims.

With respect to claims 1-4, Applicants note that the rejection does not identify where Baker et al. teaches a device that includes "a sample opening in fluid communication with the sample volume" as recited in claim 1.

With respect to claims 14-18 and 28-29, Applicants note that the rejection does not identify where or how Baker et al. discloses "at least one concentrator element" as recited in claim 14 and "at least one processing element comprising a body that comprises a plurality of processing chambers formed in the body" as also recited in claim 14.

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For at least these reasons, Applicants respectfully submit that Baker et al. does not anticipate claims 1-4, 14-18, and 28-29.

The 35 U.S.C. §103 Rejection

Claims 7-10, 21-24, 30-33, and 35 were rejected under 35 U.S.C. §103(a) as being unpatentable over Baker et al. (U.S. Patent No. 5,716,584) as applied to claims 1 and 14 above. Applicants respectfully disagree.

As noted above with respect to the anticipation rejections of claims 1 and 14, Baker et al. does not teach specific elements of claim 1 or claim 14. Furthermore, this obviousness rejection based on Baker et al. alone does not identify any motivation or suggestion that would lead one of ordinary skill in the art to modify the apparatus of Baker et al. to reach the inventions recited in claims 1 and 14. As a result, a proper *prima facie* case of obviousness has not been established with respect to claims 7-10, 21-24, 30-33, and 35 (all of which directly or ultimately depend from claim 1 or claim 14). Reconsideration and withdrawal of the rejection are, therefore, respectfully requested.

Claims 11-13, 25-27, and 34 were rejected under 35 U.S.C. §103(a) as being unpatentable over Baker et al. (U.S. Patent No. 5,716,584) as applied to claims 1, 14, and 32 above, and further in view of Mohan et al. (U.S. Patent No. 5,888,830). Applicants respectfully disagree.

As noted above with respect to the anticipation rejections of claims 1 and 14, Baker et al. does not teach specific elements of claim 1 or claim 14. Furthermore, this obviousness rejection based on Baker et al. alone does not identify any motivation or suggestion that would lead one of ordinary skill in the art to modify the apparatus of Baker et al. to reach the inventions recited in claims 1 and 14. As a result, a proper *prima facie* case of obviousness has not been established with respect to claims 11-13, 25-27, and 34 (all of which directly or ultimately depend from claim 1 or claim 14). Reconsideration and withdrawal of the rejection are, therefore, respectfully requested.

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Claims 1-58 were rejected under 35 U.S.C. §103(a) as being unpatentable over Friswell (U.S. Patent No. 5,100,623), in view of Ball et al. (U.S. Patent No. 5,679,580) and Mohan et al. (U.S. Patent No. 5,888,830). Applicants respectfully traverse this rejection and the assertions made in support thereof.

Friswell teaches that a vortexing action can be obtained in the gas above a fluid sample by introducing a gas into the vessel 16 using a nozzle 22. The introduced fluid is asserted to form a vortex above a fluid sample and exit vessel 16 through the center at the top (see, e.g., FIG. 2) after removing at least some liquid from the fluid sample 34 in the vessel 16.

In contrast, Ball et al. teaches a radically different system/method in which a fluid sample is flowed into a vessel 10 through an inlet 22 and is entrained and atomized in the air or other gas entering the vessel 10 through slit 14. In other words, there is no sample volume above which a vortex is created as in Friswell. Ball teaches that a vortexing action can be obtained in the vessel 10 by introducing a liquid into the vessel 16 using a nozzle 22 and, at the same time, drawing gas into the vessel through a slit 14 that extends along substantially the entire length of the vessel. The gas is drawn out of the vessel 10 through the center at the top (see FIG. 1). The introduced fluids (gas and liquid) are described as forming a vortex that is used to either dry the liquid, leaving an analyte dried on the inner surface of the vessel. After the analyte is dried on the inner surface of the vessel 10, it is reconstituted with a solvent introduced into the vessel and vortexed by the addition of gas through the slit 14 to "wash" the analyte to the bottom of the vessel, where the solvent is dried, leaving the analyte at the bottom of the vessel.

In view of the radical differences in basic operational principles between Friswell and Ball, Applicants submit that the rejection does not meet the requirements for *prima facie* obviousness because, among other reasons, the proposed modification of Friswell would change its principle of operation from evaporation by a vortex of drying gas to evaporation by entrainment and atomization of the liquid sample. "If the proposed modification or combination of the prior art would change the principle of operation of the prior art being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious." MPEP § 2143.01, p. 2110-131 (8th Ed., Rev. 2, May 2004).

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Furthermore, the asserted motivations to modify the teachings of Friswell by those of Ball are also not supported by the references. For example, the assertion that it would have been obvious to make the proposed modifications "because of the similarity in the method of operation" is not supported by the references themselves. As discussed above, Friswell and Ball teach radically different approaches to sample drying (i.e., vortexing above the sample versus actually entraining and atomizing the sample in a gas flow). In other words, Friswell and Ball do not have a "similarity in the method of operation" as asserted.

The other motivation relied on in support of the proposed combination of Friswell and Ball, i.e., "to obtain rapid evaporation taught by Ball" is also not supported by the references. Ball provides for rapid evaporation because of entrainment and atomization of the sample material (as discussed in numerous "important objects" of the invention by Ball). In contrast, Friswell requires monitoring of the sample level within a container to determine when sufficient drying has occurred, i.e., the sample material is not entrained and atomized in a helical gas flow, but is, instead, located at the bottom of the vessel. As a result, the asserted motivation to combine based on "rapid evaporation" would require entrainment and atomization. That, however, would lead to a change in the principle of operation of Friswell which, as discussed above, is not proper in the context of a *prima facie* case of obviousness.

The teachings of Mohan are not asserted to, nor do they, address any of the deficiencies in the *prima facie* case of obviousness based on the proposed combination of Friswell and Ball.

Finally, the rejection of all of claims 1-58 is not accompanied by any discussion of many features recited in the fifty-eight claims subject to this rejection. The failure of this rejection to address the many different features recited in the fifty-eight claims and how each of those features is found in or suggested by the cited references prevents the rejection from reaching the status of a proper *prima facie* case of obviousness. Mere paraphrasing of the disclosures of the different references does not provide a proper legal basis for a *prima facie* case of obviousness.

In view of the above, Applicants respectfully submit that the rejection of claims 1-58 under 35 U.S.C. § 103 does not meet the requirements for a *prima facie* case of obviousness. Reconsideration and withdrawal of this rejection are, therefore, respectfully requested.

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It is respectfully submitted that claims 1-63 are in condition for allowance and notification to that effect is respectfully requested. The Examiner is invited to contact Applicants' Representatives, at the below-listed telephone number, if it is believed that prosecution of this application may be assisted thereby.

Respectfully submitted for
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3 SEPT. 2004

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CERTIFICATE UNDER 37 CFR §1.8:

The undersigned hereby certifies that the Transmittal Letter and the paper(s), as described hereinabove, are being transmitted by facsimile in accordance with 37 CFR §1.6(d) to the Patent and Trademark Office, addressed to Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 3rd day of September, 2004, at 10:15 a.m. (Central Time).

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